

## ABSTRACT OF THE DISCLOSURE

An acetabular reamer including a reaming head having arcuately-shaped segments generally symmetrically distributed about a center point. The arcuately-shaped segments are extendable or retractable about the center point  
5 to create a variable dimensioned recess in an acetabular region. The reamer may also include an actuator for selectively extending or retracting the segments so that the segments remain generally symmetrically distributed about the center point as the segments are expanded or retracted. The segments may further include cutting surfaces having a shape corresponding to a portion of a surface  
10 of a hemisphere. In one form, the segments may be configured in a narrow symmetrical "slice" of a hemispherical surface that provides an adjustable hemispherically shaped cutting arc.